REMARKS

Claims 1-14 were in the application as originally filed. Claim 4 had been previously cancelled. New Claims 15 -20 were added by previous amendments. Claims 1-3 and 5-20 are now pending. Claim 9 has been amended to correct a typographical error. Applicant thanks the Examiner for withdrawing the previous 35 USC 112 rejection.

REJECTIONS UNDER 35 USC 102

Claims 1-3, 8-10, 12 and 14-20 are rejected as anticipated by Hirai (US 2003/0146019). Hirai is cited as disclosing similar ink jet ink. Although there is no disclosure of the ink's stability, the examiner asserts that the ink of Hirai would inherently possess a similar stability to the instant ink.

Claims 1-3, 5, 8-10, 12 and 14-17 are rejected under 35 USC 102(b) as being anticipated by DE 19846096. As pointed out in our previous response, that reference is directed to nano-sized materials, i.e . . . . up to 100 nm. Applicant's claims are now limited to a size where the average particle size (D50) is 0.1 to 1.2 microns.

The Examiner continues to argue, however, that the reference would inherently possess stability as claimed and the present applicant's particle size is close to those of the reference. As was mentioned previously, DE 19846096 does not disclose a composition with a viscosity between 5 mPa.s to 50 mPa.s at a temperature of 25°C to 35°C. Furthermore, there is no disclosure of a composition which is stable for 24 hours. It cannot be presumed, without some additional information or testing, that the reference inherently possesses applicant's stability as there is nothing in the reference to even suggest this large, very desirable, advantage. Further, DE 19846096 does not disclose a composition comprising a conductive material of silver. Previously added Claim 20 identifies a silver composition and falls outside of the limitations of DE 19846096.

Claims 1-3, 5, 8-12 and 14-20 are rejected under 35 USC 102(e) as anticipated by Kodas et al. (US 1003/0175411). Kodas et al described ink jetting **precursor** compositions of electronic conductor, resistor and dielectic compositions. The precursors are soluble organometallic materials. Kodas et al also mentioned that nano-sized particles could be mixed with precursor compositions. The Examiner has arged that since the solvent in Kodas acts as the ink vehicle, it is clear to him that the solvent is inherently present in the amount as claimed. Applicant respectfully points out that his claims are directed to ink jet compositions

with larger particles and a low viscosity at the same time. Applicant discovered that PVP polymers can enable such compositions.

The Examiner notes that although there is no disclosure in Kodas ET al.about the composition's stability for 24 hours, he argues that this feature is inherent in Kodas et al's composition. Applicant again argues that the present particles are different from those of Kodas et al. and the differences overcome the Examiner's assertion that the claims are anticipated. Applicant again points out that Kodas at paragraph [0045] recites that he uses a hollow micron-size particle and further goes on to describe that such particles "...have a useful shelf life without the necessity of mechanical mixing techniques". Thus, it is preferred that a large mass fraction of the particles, such as at least about 50 weight percent remain suspended in the liquid for at least 1 hour." At paragraph [0054]. "Furthermore, the particles can be completely redispersed after settling, such as by mixing, At paragraph [0054]. This difference clearly suggests that the composition of Kodas's patent is not capable of stability for 24 hours. Kodas details that its composition is only stable for about 1 hour and requires mechanical mixing techniques to enhance its effectiveness after that about 1 hour.

Applicants further point out that the composition of the present invention is "stable for up to 24 hours without noticeable silver particle settlement and can still be jetted. After about 24 hours (not merely one hour), a stable and jettable dispersion can be "re-obtained" by simply shaking of the mixture manually." (See Examples) Applicant sees this difference as substantial and does not agree that the evidence is enough to establish anticipation under 35 USC 102.

The Examiner has continued to argue that Kodas would inherently possess the present composition's stability and possesses its other characteristics as Kodas' composition is used in an ink jet printer. The fact that both Kodas' composition and the present composition are both used for ink jetting does not, by iteself, indicate that these compositions are the same. The differences discussed above make it clear that the compositions are different.

If Kodas's ink jet composition had the capacity to be stable for a period much larger than one hour, he would certainly have emphasized this important improvement and mentioned the approximate amount of stability time.. Kodas does not make such claim.

REJECTIONS UNDER 35 USC 103

Claim 5 has been rejected as obvious over Hirai (US 2003/0146019) in view of Zhu et al. (US 6,251,175). The Examiner notes that the difference between applicant's claim and these references is the requirement of poly (meth) acrylate.

Hirai is said to disclose ink with binder. The Examiner found it obvious to use acrylin resin in the ink of Hirai to produce ink with rapid dry time and thus arrive at the present invention. As noted previously, Hirai discloses a composition where most particles are nano-sized particles. As noted above, the amendments made in the present application, giving an average particle size, avoids the nano-sized materials of the reference. The amendment makes it clear that most of its particles fall outside the range of the particles in Hirai.

Claim 6 and 7 were deemed obvious over Kodas in view of Adkins. As noted previously, there are differences between the present invention and Kodas. Adkins was cited as disclosing the interchangeability of using certain organics. Applicant maintains that the combination would not be expected to produce the present invention and could not be assumed to come up with the same stability.

Claim 13 is rejected as obvious over DE 19846096 or Kodas in view of Shioi. The Examiner notes that the difference between the claims of Harai or Kodas is the coating of the conductor with fatty acid. Further differences are detailed above under the 35 USC 102 issues. Applicant respectfully points out that the present invention requires a specific type of monomer not found in Kodas. The previous arguments regarding Kodas above are incorporated herein.

Shioi, cited as a secondary teaching reference, is cited for its teaching of coating metal reagents with a fatty acid surfactant and and providing the motivation to combine Kodas and Harai with the fatty acid. Shioi et. al claim an "ink composition for writing on an absorbent or pervious writing surface to form thereon a writing or marking composed of an inner portion of a metallic color with outer contour portions there around of a dyestuff-based color, which composition consists essentially of: a nonleafing metal powder pigment as a first pigment, an inorganic pigment other than a metal powder or organic pigment as a second pigment, a dyestuff, and a solvent, the nonleafing metal powder pigment being dispersed in the solvent and having a particle size sufficiently large so as to substantially not permeate or be absorbed into the writing surface, and the second pigment being dispersed in the solvent and either having a particle size sufficiently large so as to substantially not permeate or be absorbed into the writing surface, or having a particle size sufficiently large so as to substantially be

absorbed on the nonleafing metal powder pigment, the dyestuff being dissolved in the solvent, being capable of substantially permeating or being absorbed into the writing surface and diffusing into the area on the writing surface proximate to the writing, whereby the nonleafing metal powder pigment forms in conjunction with the second pigment the inner portion of the metallic color, and the dyestuff forms the outer contour portions of the dyestuff-based color around the inner portion." The present invention, while in the ink jetting field, does not contain the specific dyestuff materials and pigments disclosed in Shioi.

Claims 1-3,5-6 and 9-15 were rejected as obvious over Tucker et al. (US 2007/0117884). Tucker et al. was cited as disclosing an ink jet ink comprising dielectric material. The Examiner points out and applicant agrees that the present invention cannot be "clearly envisaged " from Turker et al.. However, he asserts that the composition used in Turker et al. ovelaps the present one and argues that one skilled in the art would be motivated to use the same composition to arrive at the present invention. Applicant respectfully points out that without some futher indication and teaching, one would not be motivated to arrive at applicants' invention where it is not clearly envisaged from Tucket et al.

Claim 7 is rejected under 35 USC 103 (a) as being unpatentable over Turker et al. as applied above and in further view of Adkins (US 6,379,444). The examiner argues that Adkins teaches the use of ethylene glycol diacrylates as in Tucker with the use of trimethylolpropane tri(meth)acrylate as presently claimed. The Examiner argues the in view of the above uses it would have been obvious to use the monomer in the ink of Kodas. Applicant again points out that the average particle size in the present case differentiates its claims from the disclosures in Kodas and would apply to Claim 7 that depends from Claim 1 through Claim 6. Even combining these references it would not be definite that the present invention would be the result.

Claims 1-3,8-10, 12-15 and 17 were rejected under 35 USC 103(a) as unpatentable over Kozee et al. (US 7,147,801).Kozee et al. discloses ink jet ink comprising dielectric materialvinyl pyrrolidonecopolymer , photoinitiator, and 30-99% solvent . The ink's viscosity is similar to the present invention's viscosity. The Examiner notes that Kozee also does not exemplify the present invention but, with routine experimentation, might have arrived at the present invention. Applicant again argues that merely being in a similar technical field would not necessarily result in arriving at the present invention and that the examiner has cited nothing further to guide the experimentation the examiner suggests, so as to provide a recipe to arrive at applicants' invention.

In view of the foregoing discussion and amendments already submitted and offered herein, allowance of Claims 1-3 and 5-20, is respectfully requested.

If anything further is required to advance this case to allowance the Examiner is invited to contact applicants' attorney at the telephone number below.

Respectfully submitted,

BARBARA C. SIEGELL
ATTORNEY FOR APPLICANT
Registration No.: 30,684
Telephone: (302) 992-4931
Facsimile: (302) 992-5374

Dated: 6/18/08